



UNITED STATES PATENT AND TRADEMARK OFFICE

UNITED STATES DEPARTMENT OF COMMERCE
United States Patent and Trademark Office
Address: COMMISSIONER FOR PATENTS
P.O. Box 1450
Alexandria, Virginia 22313-1450
www.uspto.gov

APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/623,790	07/22/2003	Keith Andrew Oglesby	200-0990	6085

7590 05/03/2004

Carlos L. Hanze
Ford Global Technologies, LLC
600 Parklane Towers East
One Parklane Blvd.
Dearborn, MI 48121

EXAMINER

GONZALEZ, JULIO C

ART UNIT	PAPER NUMBER
----------	--------------

2834

DATE MAILED: 05/03/2004

Please find below and/or attached an Office communication concerning this application or proceeding.

Office Action Summary	Application No.		Applicant(s)	
	10/623,790		OGLESBY ET AL. <i>GA</i>	
	Examiner		Art Unit	
	Julio C. Gonzalez		2834	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☐ Responsive to communication(s) filed on ____.
- 2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 21-24 is/are pending in the application.
 4a) Of the above claim(s) _____ is/are withdrawn from consideration.
- 5) ☐ Claim(s) _____ is/are allowed.
- 6) ☒ Claim(s) 21-24 is/are rejected.
- 7) ☐ Claim(s) _____ is/are objected to.
- 8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☒ The drawing(s) filed on 22 July 2003 is/are: a) ☒ accepted or b) ☐ objected to by the Examiner.
 Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
 Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
 a) ☐ All b) ☐ Some * c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
2. ☐ Certified copies of the priority documents have been received in Application No. _____.
3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).
- * See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- | | |
|---|---|
| 1) <input checked="" type="checkbox"/> Notice of References Cited (PTO-892) | 4) <input type="checkbox"/> Interview Summary (PTO-413) |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948) | Paper No(s)/Mail Date. _____ |
| 3) <input type="checkbox"/> Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08) | 5) <input type="checkbox"/> Notice of Informal Patent Application (PTO-152) |
| Paper No(s)/Mail Date _____ | 6) <input type="checkbox"/> Other: _____ |

DETAILED ACTION

Claim Rejections - 35 USC § 112

1. The following is a quotation of the second paragraph of 35 U.S.C. 112:

The specification shall conclude with one or more claims particularly pointing out and distinctly claiming the subject matter which the applicant regards as his invention.

2. Claims 21 is rejected under 35 U.S.C. 112, second paragraph, as being indefinite for failing to particularly point out and distinctly claim the subject matter which applicant regards as the invention.

The claim discloses a fuel cell system being powered by air and pressurized gas fuel. A driving force is applied to a generator, however, it is not clear which driving force is the claim referring to, is it the air? The pressurized gas fuel? Is the fuel cell system considered to be batteries or is it the whole energy system including the gas fuel and air?

Also, the claims are not clear if the pressurized gas fuel is meant to as being gasoline fuel or hydrogen gas. Respectfully, clarification is required. If the pressurized gas fuel is hydrogen gas then what would the main function of having air as being part of the fuel cell system?

In order to advance prosecution in the merits, the Prior Art will be applied as best understood by the examiner.

Double Patenting

3. The nonstatutory double patenting rejection is based on a judicially created doctrine grounded in public policy (a policy reflected in the statute) so as to prevent the unjustified or improper timewise extension of the "right to exclude" granted by a patent and to prevent possible harassment by multiple assignees. See *In re Goodman*, 11 F.3d 1046, 29 USPQ2d 2010 (Fed. Cir. 1993); *In re Longi*, 759 F.2d 887, 225 USPQ 645 (Fed. Cir. 1985); *In re Van Ornum*, 686 F.2d 937, 214 USPQ 761 (CCPA 1982); *In re Vogel*, 422 F.2d 438, 164 USPQ 619 (CCPA 1970); and, *In re Thorington*, 418 F.2d 528, 163 USPQ 644 (CCPA 1969).

A timely filed terminal disclaimer in compliance with 37 CFR 1.321(c) may be used to overcome an actual or provisional rejection based on a nonstatutory double patenting ground provided the conflicting application or patent is shown to be commonly owned with this application. See 37 CFR 1.130(b).

Effective January 1, 1994, a registered attorney or agent of record may sign a terminal disclaimer. A terminal disclaimer signed by the assignee must fully comply with 37 CFR 3.73(b).

4. Claim 21 is provisionally rejected under the judicially created doctrine of obviousness-type double patenting as being unpatentable over claim 1 of copending Application No. US 2002/0162698. Although the conflicting claims are not identical, they are not patentably distinct from each other because both claims recite an operation for a vehicle and both claims describe using a lower pressure in order to operate a fuel system and also using in part a driving force to generate electricity.

This is a provisional obviousness-type double patenting rejection because the conflicting claims have not in fact been patented.

Claim Rejections - 35 USC § 103

5. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

6. Claims 21, 23 and 24 are rejected under 35 U.S.C. 103(a) as being unpatentable over Tsatsis (US 6,054,838) in view of Abdelmalek (US 5,327,987).

Tsatsis discloses a system for a vehicle using air inside a tank 11 and driving a mechanical force 12 and applying such driving force to an electrical machine 13 to generate electrical power (see figure 1). Moreover, it is disclose that the electrical power can be stored in devices 14 and the electrical power may be applied to electrical loads M1, M2 (see figure 2). Also, Tsatsis discloses using a device 34 to lower the pressure of the fuel cell system (see claim 6).

However, Tsatsis does not disclose explicitly directly using a low pressure to drive a mechanical force and in turn to an electrical machine driving a generator.

On other hand, Abdelmalek discloses for the purpose of providing a vehicle that conserves energy that a portion of the fuel cell system may be used by lowering the pressure, applying the force to a mechanical driving force, which in turn drive an generator (column 5, lines 55-60). Moreover, it is disclose that power may be stored (column 5, lines 13-16) and may be used to drive the vehicle loads (column 6, lines 10-12, 29-31).

It would have been obvious to one having ordinary skill in the art at the time the invention was made to design a method for operating a vehicle as disclosed by Tsatsis and to use disclose directly using a low pressure to drive a mechanical force for the purpose of providing a vehicle that conserves energy as disclosed by Abdelmalek.

7. Claim 22 is rejected under 35 U.S.C. 103(a) as being unpatentable over Tsatsis and Abdelmalek as applied to claim 21 above, and further in view of Viteri et al (US 6,170,264).

The combined method of operating a vehicle discloses all of the elements above. However, the combined method of operating a vehicle does not disclose explicitly raising a pressure to operate a fuel cell system.

On the other hand, Viteri et al discloses for the purpose of providing a low pollution engine for a vehicle wherein it is disclose that the pressure of

air is raised (see figures 17, 18 & column 7, lines 34-51; column 11, lines 50-61, 63, 64; column 12, lines 1-9, 17-23) in order to drive the fuel cell system.

It would have been obvious to one having ordinary skill in the art at the time the invention was made to design the combined method for operating a vehicle as disclosed above and to raise the pressure of air in order to operate the fuel cell system for the purpose of providing a low pollution engine for a vehicle as disclosed by Viteri et al.

Conclusion

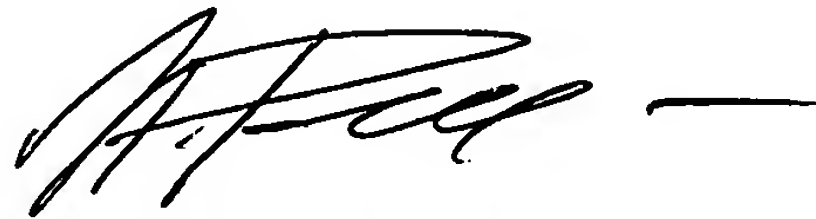
Any inquiry concerning this communication or earlier communications from the examiner should be directed to Julio C. Gonzalez whose telephone number is 571-272-2024. The examiner can normally be reached on M-F (8AM-5PM).

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Darren Schuberg can be reached on 571-272-2044. The fax phone number for the organization where this application or proceeding is assigned is 703-872-9306.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).

Jcg

March 26, 2004



Nicholas Ponomarenko
Primary Examiner
Technology Center 2800